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Claims

- A flame retardant epoxy resin composition containing no more than 10 percent by weight of halogen, comprising
 - a) an epoxy resin.
 - b) a phosphonic acid ester in an amount such as to provide from 0.2 to 5 weight percent phosphorus in the composition,
 - c) a nitrogen-containing crosslinking agent having an amine functionality of at least 2, in an amount of from 10 to 80 percent of the stoichiometric amount needed to cure the epoxy resin,
 - d) from 0.1 to 3 weight percent of a catalyst capable of promoting the reaction of the phosphonic acid ester with the epoxy resin and promoting the curing of the epoxy resin with the crosslinker and, optionally
 - e) a Lewis acid in an amount of up to 2 moles per mole of catalyst.
- 2. A composition as claimed in Claim 1, wherein the epoxy resin has a softening point at least 50 degrees C (by ASTM D3104).
 - 3. A composition as claimed in Claim 1 or Claim 2, wherein the epoxy resin contains not more than 2 alkyl groups per molecule.
- 4. A composition as claimed in Claim 3, wherein the epoxy resin contains not more than 1 alkyl group per molecule.
 - 5. A composition as claimed in any one of the preceding Claims, wherein the epoxy resin is the reaction product [or a mixture] of a monomer containing at least two epoxy groups, and a difunctional chain-extending monomer, or wherein the composition additionally comprises a difunctional chain-extending monomer.
 - 6. A composition as claimed in Claim 5, wherein the difunctional chain-extending monomer is -methylene bis(phenylisocyanate) (MDI), Toluenediisocyanate (TDI), 2,6,dimethylhexylamine, sulfanilamide or anthranilamide.